

# CLIFFORD I. WORKMAN, Ph.D.

[cliffworkmanphd@gmail.com](mailto:cliffworkmanphd@gmail.com) • <https://cliffordworkman.com>

Penn Center for Neuroaesthetics • Department of Neurology • University of Pennsylvania  
Goddard Laboratories, Room 332, 3710 Hamilton Walk, Philadelphia, PA 19104

**Version Date:** 04 March 2021

## **RESEARCH INTERESTS:**

---

1. The neuroscience of moral cognition (e.g., beliefs), emotions (e.g., guilt), and motivation (e.g., underpinning altruism), and how these facets of morality are shaped by learning
2. Relations between morality and beauty (e.g., how moral emotions influence aesthetic evaluations), as well as their neural substrates and the extent to which they are shared
3. Disturbances to normal moral functioning in healthy (e.g., supporting sociopolitical violence) and disordered populations (e.g., symptomatic guilt in major depression)

## **FACULTY APPOINTMENTS:**

---

2021 Visiting Assistant Professor of Psychology, Haverford College, Haverford, PA

## **EDUCATION & POSTGRADUATE TRAINING:**

---

- 2018 – 2022 Ruth L. Kirschstein National Research Service Award (NRSA) Fellow, The University of Pennsylvania, Department of Neurology, Philadelphia, PA (Mentor: Anjan Chatterjee, M.D.; Co-Mentors: Geoffrey K. Aguirre, M.D. & Joseph W. Kable Ph.D.)
- 2016 – 2018 Postdoctoral Scholar, The University of Chicago, Department of Psychology, Chicago, IL (Mentor: Jean Decety, Ph.D.)
- 2012 – 2016 Ph.D. in Medicine (Cognitive Neuroscience), The University of Manchester (UM), Manchester, UK  
*“The Role of Moral Cognition and Emotions in Remitted Major Depressive Disorder”*  
Supervisors: Professor Rebecca Elliott (UM, UK) & Dr. Roland Zahn (King's College London, UK)
- 2003 – 2007 Bachelor of Science in Psychology, University of Maryland, Baltimore County (UMBC), Baltimore County, MD (GPA: 3.84/4.00); Minor: Biology, Concentration: Biopsychology

## **GRANTS:**

---

- 9/19 – 8/22 PI, NIH/NIDCR Ruth L. Kirschstein Institutional NRSA Fellowship (1F32DE029407), “The good, the bad, and the different: Understanding stigma towards people with facial differences” (\$206,882 USD)
- 8/17 – 11/19 Co-PI, John Templeton Foundation subaward, “Why Do Some Stories of Moral Exemplars Increase Prosocial Behavior?” (\$28,402 USD).
- 8/17 – 11/19 Co-PI, John Templeton Foundation subaward, “Epistemic Injustice and Trauma: The Neural Substrates Involved in Having One’s Credibility Repeatedly Undermined” (\$29,138 USD).
- 8/10 – 8/11 Co-Investigator, Johns Hopkins University Brain Science Institute award, “Glutamate in Geriatric Depression: A Potential Mechanism Underlying Increased Dementia Risk” (\$20,000 USD).

## **PEER-REVIEWED JOURNAL ARTICLES:**

---

23. **Workman, C.I.**, Humphries, S., Hartung, F., Aguirre, G.K., Kable, J.W., & Chatterjee, A. (in press). Morality is in the eye of the beholder: The neurocognitive basis of the “anomalous-is-bad” stereotype. *Annals of the New York Academy of Sciences*. DOI: [10.1111/nyas.14575](https://doi.org/10.1111/nyas.14575) (Preprint: <https://psyarxiv.com/mz75u/>)

## CLIFFORD I. WORKMAN, Ph.D.

22. Smith, G.S., Kuwabara, H., Nandi, A., Gould, N.F., Nassery, N., Savonenko, A.V., Joo, J.H., Kraut, M.A., Brasic, J., Holt, D.P., Hall, A., Mathews, W., Dannals, R.F., Avramopoulos, D., & **Workman, C.I.** (2021). Molecular Imaging of Beta-Amyloid Deposition in Late-life Depression. *Neurobiology of Aging*. DOI: [10.1016/j.neurobiolaging.2021.01.002](https://doi.org/10.1016/j.neurobiolaging.2021.01.002)
21. Smith, G.S., Kuwabara, H., Gould, N.F., Nassery, N., Savonenko, A.V., Joo, J.H., Bigos, K., Kraut, M.A., Brasic, J., Holt, D.P., Hall, A., Mathews, W., Dannals, R.F., Nandi, A., & **Workman, C.I.** (2021). Molecular Imaging of the Serotonin Transporter Availability and Occupancy by Antidepressant Treatment in Late-Life Depression. *Neuropharmacology*. DOI: [10.1016/j.neuropharm.2021.108447](https://doi.org/10.1016/j.neuropharm.2021.108447)
20. Smith, G.S., Oeltzschner, G., Leoutsakos, J–M.S., Gould, N.F., Nassery, N., Joo, J.H., Kraut, M.A., Edden, R.A.E., Barker, P.B., Wijtenburg, S.A., Rowland, L.M., & **Workman, C.I.** (2021). Neurotransmitters and Neurometabolites in Late-Life Depression: A Preliminary Magnetic Resonance Spectroscopy Study at 7T. *Journal of Affective Disorders*, 1-29. DOI: [10.1016/j.jad.2020.10.011](https://doi.org/10.1016/j.jad.2020.10.011)
19. Lythe, K.E., Gethin, J.A., **Workman, C.I.**, Lambon Ralph, M.A., Deakin, J.F.W., Moll, J., & Zahn, R. (2020). Subgenual cingulate activation and the finger of blame: individual differences and depression vulnerability. *Psychological Medicine*, 1-9. DOI: [10.1017/s0033291720003372](https://doi.org/10.1017/s0033291720003372)
18. **Workman, C.I.**, Yoder, K.J., & Decety, J. (2020). The Dark Side of Morality – Neural Mechanisms Underpinning Moral Convictions and Support for Violence. *American Journal of Bioethics - Neuroscience*, 11(4):269-284. DOI: [10.1080/21507740.2020.1811798](https://doi.org/10.1080/21507740.2020.1811798) (Preprint: <https://psyarxiv.com/t69w4/>)
17. Oeltzschner, G., Wijtenburg, S.A., Mikkelsen, M., Edden, R.A.E., Barker, P.B., Joo, J.H., Leoutsakos, J–M.S., Rowland, L.M., **Workman, C.I.\***, & Smith, G.S.\* (2019). Neurometabolites and associations with cognitive deficits in mild cognitive impairment: A magnetic resonance spectroscopy study at 7 Tesla. *Neurobiology of Aging*, 73:211-218. DOI: [10.1016/j.neurobiolaging.2018.09.027](https://doi.org/10.1016/j.neurobiolaging.2018.09.027)  
\*Co-senior authors
16. Decety, J., Pape, R.A., & **Workman, C.I.** (2018). A multilevel social neuroscience perspective on radicalization and terrorism. *Social Neuroscience*, 13(5):511–529. DOI: [10.1080/17470919.2017.1400462](https://doi.org/10.1080/17470919.2017.1400462)
15. Wijtenburg, S.A., Rowland, L.M., Oeltzschner, G., **Workman, C.I.\***, & Smith, G.S.\* (2018). Reproducibility of brain MRS in older healthy adults at 7T. *NMR in Biomedicine*, 32(2):e4040. DOI: [10.1002/nbm.4040](https://doi.org/10.1002/nbm.4040)  
\*Co-senior authors
14. **Workman, C.I.**, Lythe, K.E., McKie, S., Moll, J., Gethin, J.A., Deakin, J.F.W., Elliott, R., & Zahn, R. (2017). A novel resting–state functional MRI signature of resilience to recurrent depression. *Psychological Medicine*, 47(4):597–607. DOI: [10.1017/s0033291716002567](https://doi.org/10.1017/s0033291716002567)
13. Barrett, F.S., **Workman, C.I.**, Sair, H.I., Savonenko, A.V., Kraut, M.A., Sodums, D., Joo, J.H., Nassery, N., Marano, C.M., Munro, C.A., Brandt, J., Zhou, Y., Wong, D.F., & Smith, G.S. (2017). Association between Serotonin Denervation and Resting–State Functional Connectivity in Mild Cognitive Impairment. *Human Brain Mapping*, 38(7):3391–3401. DOI: [10.1002/hbm.23595](https://doi.org/10.1002/hbm.23595)
12. Gethin, J.A., Lythe, K.E., **Workman, C.I.**, Mayes, A., Moll, J., & Zahn, R. (2017). Early life stress explains reduced positive memory biases in remitted depression. *European Psychiatry*, 45:59–64. DOI: [10.1016/j.eurpsy.2017.06.011](https://doi.org/10.1016/j.eurpsy.2017.06.011)
11. Smith, G.S., Barrett, F.S., Joo, J.H., Nassery, N., Marano, C.M., Munro, C.A., Brandt, J., Savonenko, A.V., Sodums, D.J., Kraut, M.A., Zhou, Y., Wong, D.F., & **Workman, C.I.** (2017). Molecular imaging of serotonin degeneration in mild cognitive impairment. *Neurobiology of Disease*, 105:33–41. DOI: [10.1016/j.nbd.2017.05.007](https://doi.org/10.1016/j.nbd.2017.05.007)
10. **Workman, C.I.**, Lythe, K.E., McKie, S., Moll, J., Gethin, J.A., Deakin, J.F.W., Elliott, R., & Zahn, R. (2016). Subgenual Cingulate–Amygdala Functional Disconnection and Vulnerability to Melancholic Depression. *Neuropsychopharmacology*, 41(8):2082–2090. DOI: [10.1038/npp.2016.8](https://doi.org/10.1038/npp.2016.8)
9. Lythe, K.E., Moll, J., Gethin, J.A., **Workman, C.I.**, Green, S., Lambon Ralph, M.A., Deakin, J.F.W., & Zahn, R. (2015). Self-blame–selective hyperconnectivity between anterior temporal and subgenual cortices

## CLIFFORD I. WORKMAN, Ph.D.

predicts recurrent depressive episodes. *JAMA Psychiatry*. 72(11):1119–1126. DOI: [10.1001/jamapsychiatry.2015.1813](https://doi.org/10.1001/jamapsychiatry.2015.1813)

8. Marano, C.M., **Workman, C.I.**, Lyman, C.H., Munro, C.A., Kraut, M.A., & Smith, G.S. (2015). Structural Imaging in Late–Life Depression: Association with Mood and Cognitive Responses to Antidepressant Treatment. *The American Journal of Geriatric Psychiatry*, 23(1):4–12. DOI: [10.1016/j.jagp.2013.10.001](https://doi.org/10.1016/j.jagp.2013.10.001)
7. Sankar, T., Chakravarty, M.M., Bescos, A., Lara, M., Laxton, A.W., McAndrews, M.P., Tang–Wai, D.F., **Workman, C.I.**, Smith, G.S., & Lozano, A.M. (2015). Deep Brain Stimulation Influences Brain Structure in Alzheimer's Disease. *Brain Stimulation*, 8(3):645–654. DOI: [10.1016/j.brs.2014.11.020](https://doi.org/10.1016/j.brs.2014.11.020)
6. Zahn, R., Lythe, K.E., Gethin, J.A., Green, S., Deakin, J.F.W., **Workman, C.I.**, & Moll, J. (2015). Negative emotions towards others are diminished in remitted major depression. *European Psychiatry*, 30(4):448–453. DOI: [10.1016/j.eurpsy.2015.02.005](https://doi.org/10.1016/j.eurpsy.2015.02.005)
5. Marano, C.M., **Workman, C.I.**, Lyman, C.H., Kramer, E., Hermann, C.R., Ma, Y., Dhawan, V., Chaly, T., Eidelberg, D., & Smith, G.S. (2014). The Relationship between Fasting Serum Glucose and Cerebral Glucose Metabolism in Late–Life Depression and Normal Aging. *Psychiatry Research: Neuroimaging*, 222(1–2):84–90. DOI: [10.1016/j.psychresns.2014.01.009](https://doi.org/10.1016/j.psychresns.2014.01.009)
4. Marano, C.M., **Workman, C.I.**, Kramer, E., Hermann, C.R., Ma, Y., Dhawan, V., Chaly, T., Eidelberg, D., & Smith, G.S. (2012). Longitudinal Studies of Cerebral Glucose Metabolism in Late–Life Depression and Normal Aging. *International Journal of Geriatric Psychiatry*, 28(4):417–423. DOI: [10.1002/gps.3840](https://doi.org/10.1002/gps.3840)
3. Munro, C.A., **Workman, C.I.**, Kramer, E., Hermann, C.R., Ma, Y., Dhawan, V., Chaly, T., Eidelberg, D., & Smith, G.S. (2012). Serotonin Modulation of Cerebral Glucose Metabolism: Sex and Age Effects. *Synapse*, 66(11):955–964. DOI: [10.1002/syn.21590](https://doi.org/10.1002/syn.21590)
2. Smith, G.S., Laxton, A.W., Tang–Wai, D.F., McAndrews, M.P., Diaconescu, A.O., **Workman, C.I.**, & Lozano, A.M. (2012). Increased Cerebral Metabolism After 1 Year of Deep Brain Stimulation in Alzheimer Disease. *Archives of Neurology*, 69(9): 1141–1148. DOI: [10.1001/archneurol.2012.590](https://doi.org/10.1001/archneurol.2012.590)
1. Smith, G.S., **Workman, C.I.**, Kramer, E., Hermann, C.R., Ginsberg, R., Ma, Y., Dhawan, V., Chaly, T., & Eidelberg, D. (2011). The Relationship between the Acute Cerebral Metabolic Response to Citalopram and Chronic Citalopram Treatment Outcome. *The American Journal of Geriatric Psychiatry*, 19(1):53–63. DOI: [10.1097/jgp.0b013e3181eafde4](https://doi.org/10.1097/jgp.0b013e3181eafde4)

### UNDER REVIEW

---

26. He, D., **Workman, C.I.**, Kenett, Y.N., He, X., & Chatterjee, A. (under review). The Effect of Aging on Facial Attractiveness: An Empirical and Computational Investigation.
25. **Workman, C.I.** & Chatterjee, A. (under review). The Face Image Meta-Database (fIMDb) & ChatLab Facial Anomaly Database (CFAD): Tools for research on face perception and social stigma. (Preprint: <https://psyarxiv.com/54utr>)
24. Han, H.\*, **Workman, C.I.**\*, May, J.\*, Scholtens, P., Dawson, K.J., Glenn, A.L., & Meindl, P. (under review). Which moral exemplars inspire prosociality?  
\*Co-first authors

### BOOK CHAPTERS:

---

- May, J.D., **Workman, C.I.**, Haas, J., Han, H. (in press). The Neuroscience of Moral Judgment: Empirical and Philosophical Developments. In W. Sinnott-Armstrong & F. De Brigard (Eds.), *Neuroscience and Philosophy. Bringing the Fields Together*. Boston, MA: MIT Press. (Preprint: <https://psyarxiv.com/89jcx/>)

## CLIFFORD I. WORKMAN, Ph.D.

### PRESS ARTICLES:

---

Chatterjee, A., Hartung, F., **Workman, C.I.** (2019). Scarring your children with the Lion King? *Psychology Today*, 5 August 2019, <https://www.psychologytoday.com/us/blog/brain-behavior-and-beauty/201908/scarring-your-children-the-lion-king>

### POSTERS & ABSTRACTS:

---

21. Zapatero, Z.D., **Workman, C.I.**, Kalmar, C.L., Humphries, S., Kosyk, M.S., Chatterjee, A., Taylor, J.A. (2021, October). Challenging the Core Tenants of Facial Scar Design: A National Survey of The General Public. *Abstract submitted for presentation at the 89<sup>th</sup> Annual Meeting of the American Society of Plastic Surgeons, Virtual.*
20. Zapatero, Z.D., **Workman, C.I.**, Vu, G.H., Humphries, S., Kalmar, C.L., Kosyk, M.S., Chatterjee, A., Taylor, J.A. (2021, April) "Visual Perceptions of Facial Anomalies by Eye Tracking: A Proof of Capabilities" *Abstract presented at the 78<sup>th</sup> Annual Meeting of the American Cleft Palate-Craniofacial Association, Virtual.*
19. **Workman, C.I.**, Siegel, C.G., Humphries, S., Chatterjee, A. (2021, March). Liberals and conservatives have different ethical concerns about cognitive enhancement. *Poster presented at the 28<sup>th</sup> Annual Meeting of The Cognitive Neuroscience Society, Virtual.*
18. **Workman, C.I.**, Aguirre, G.K., Chatterjee, A. (2020, May). Judging books by their covers: A candidate neurocognitive mechanism underpinning bias towards facial anomalies. *Poster presented at the 27<sup>th</sup> Annual Meeting of The Cognitive Neuroscience Society, Virtual.*
17. Humphries, S., **Workman, C.I.**, Hayn-Leichsenring, G.U., Hartung, F., Chatterjee, A. (2020, May). Aesthetics in motion: Do motor responses to artworks predict aesthetic preferences? *Poster presented at the 27<sup>th</sup> Annual Meeting of The Cognitive Neuroscience Society, Virtual.*
16. Bilici, N., **Workman, C.I.**, Humphries, S., Hamilton, R.H., Chatterjee, A. (2020, May). Normalizing Anomalies with Mobile Exposure (NAME): A novel intervention for reducing implicit biases. *Poster presented at the 27<sup>th</sup> Annual Meeting of The Cognitive Neuroscience Society, Virtual.*
15. Oeltzschner, G., Wijtenburg, S.A., Mikkelsen, M., Edden, R.A.E., Barker, P.B., Joo, J.H., Leoutsakos, J-M.S., Rowland, L.M., **Workman, C.I.**, Smith, G.S. (2019, May). 7T MRS measures of neurometabolites and their associations with cognitive deficits in mild cognitive impairment. *Poster presented at the 27<sup>th</sup> Annual Meeting of the International Society for Magnetic Resonance in Medicine, Montreal, Quebec, Canada.*
14. **Workman, C.I.**, Jamrozik, A., Rosen, M.E., Chatterjee, A. (2019, March). The Face Image Meta-Database and Chatlab Facial Anomaly Database: Tools to Facilitate Neuroscience Research on Face Perception and Social Stigma. *Poster presented at the 26<sup>th</sup> Annual Meeting of The Cognitive Neuroscience Society, San Francisco, CA, USA.*
13. Hayn-Leichsenring, G.U., Hartung, F., **Workman, C.I.**, Chatterjee, A. (2019, March). Neural Processing of Abstract Art Paintings Is Influenced by their Spatial Properties. *Poster presented at the 26<sup>th</sup> Annual Meeting of The Cognitive Neuroscience Society, San Francisco, CA, USA.*
12. **Workman, C.I.**, Yoder, K.J., Decety, J. (2018, November). Feel the spurn: An fMRI study of political polarization and support for violence. *Poster presented at the 9<sup>th</sup> Annual Meeting of The Society for Social Neuroscience, San Diego, CA, USA.*
11. Lythe, K.E., Gethin, J.A., **Workman, C.I.**, Lambon Ralph, M.A., Deakin, J.F.W., Moll, J., Zahn, R. (2018, March). Subgenual cingulate activation and the finger of blame: individual differences and depression vulnerability. *Poster presented at the 31<sup>st</sup> Annual Meeting of The British Neuropsychiatry Association, London, England, UK.*
10. Sodums, D.J., **Workman, C.I.**, Joo, J.H., Nassery, N., Smith, G.S. (2017, November). Atrophy of specific hippocampal subfields in mild cognitive impairment is associated with impaired global cognition and

## CLIFFORD I. WORKMAN, Ph.D.

episodic memory. *Poster presented at the 47<sup>th</sup> Annual Meeting of the Society for Neuroscience*, Washington, District of Columbia, USA.

9. Jaeckle, T., Williams, S., **Workman, C.I.**, Lythe, K.E., Gethin, J.A., Young, A.H., Moll, J., Zahn, R. (2017, July). Ventral striatal volumes correlate with individuals' regret related to pleasure rather than duty. *Poster presented at the 2017 Meeting of the International Society for Affective Disorders*, London, England, UK.
8. **Workman, C.I.**, Lythe, K.E., Elliott, R., Moll, J., Gethin, J.A., Deakin, J.F.W., Zahn, R. (2014, June). Resting-State Functional Disconnection of a Temporo-Fronto-Limbic Network in Remitted Depression. *Poster presented at the 20<sup>th</sup> Annual Meeting of the Organization for Human Brain Mapping*, Hamburg, Germany.
7. Lythe, K.E., Moll, J., Gethin, J.A., **Workman, C.I.**, Green, S., Deakin, J.F.W., Elliott, R., Zahn, R. (2014, June). Functional Disconnection of Temporal and Subgenual Cortices Predicts Recurrence of Depression. *Poster presented at the 20<sup>th</sup> Annual Meeting of the Organization for Human Brain Mapping*, Hamburg, Germany.
6. Marano, C.M., **Workman, C.I.**, Lyman, C.H., Zhou, Y., Munro, C.A., Dannals, R.F., Holt, D.P., Leoutsakos, J-M.S., Lyketsos, C.G., Wong, D.F., Smith, G.S. (2013, March). Cortical Beta-Amyloid Deposition in Late-Life Depression. *Poster presented at the 3<sup>rd</sup> Annual Meeting of the American Association for Geriatric Psychiatry*, Los Angeles, California, USA. *The American Journal of Geriatric Psychiatry*, 21(3):S127.
5. **Workman, C.I.**, Marano, C.M., Zhou, Y., Munro, C.A., Dannals, R.F., Holt, D.P., Leoutsakos, J-M.S., Lyketsos, C.G., Wong, D.F., Smith, G.S. (2011, November). Beta-Amyloid Deposition, Cognition, and Inflammation in Geriatric Depression. *Poster presented at the 41<sup>st</sup> Annual Meeting of the Society for Neuroscience*, Washington, District of Columbia, USA.
4. Smith, G.S., Marano, C.M., **Workman, C.I.**, Zhou, Y., Munro, C.A., Leoutsakos, J-M.S., Holt, D.P., Dannals, R.F., Wong, D.F., Lyketsos, C.G. (2011, May). PET Studies of Cortical Beta-Amyloid Deposition Measured with [<sup>11</sup>C]-PiB in Geriatric Depression. *Poster presented at the 66<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry*, San Francisco, California, USA.
3. Marano, C.M., **Workman, C.I.**, Zhou, Y., Munro, C.A., Holt, D.P., Dannals, R.F., Lyketsos, C.G., Wong, D.F., Smith, G.S. (2010, December). Cortical Beta-Amyloid Deposition in Late-Life Depression. *Poster presented at the 49<sup>th</sup> Annual Meeting of the American College of Neuropsychopharmacology*, Miami Beach, Florida, USA.
2. Watkins, C.C., Endres, C.J., Rosenberg, P.B., **Workman, C.I.**, Reynolds, A., Kassiou, M., Dannals, R.F., Smith, G.S., Pomper, M.G. (2009, December). The relationship between inflammation and healthy aging: An *in vivo* positron emission tomography study with [<sup>11</sup>C]DPA-713. *Poster presented at the 48<sup>th</sup> Annual Meeting of the American College of Neuropsychopharmacology*, Hollywood, Florida, USA.
1. **Workman, C.I.**, Spencer, R.J., Hosey, M.M., Rice, S.C., Waldstein, S.R. (2008, February). Self-Reported Sleep Predicts Performance on Tests of Attention and Executive Function: Preliminary Findings. *Poster presented at the 36<sup>th</sup> Annual Meeting of the International Neuropsychological Society*, Waikoloa, Hawaii, USA. *Journal of the International Neuropsychological Society*, 14(Supplement 1):194.

### INVITED TALKS, CONFERENCE PRESENTATIONS, & SYMPOSIA:

---

7. **Workman, C.I.**, Chatterjee, A. (2021, February). Morality is in the eye of the beholder: Unpacking the 'anomalous-is-bad' stereotype. *Talk presented at the 21<sup>st</sup> Annual Convention for the Society for Personality and Social Psychology (SPSP), Virtual*.
6. Smith, K.S., **Workman, C.I.**, Apicella, C.L., Chatterjee, A. (2021, February). Morality is in the eye of the beholder: Unpacking the 'anomalous-is-bad' stereotype. *Talk presented at the 21<sup>st</sup> Annual Convention for SPSP, Virtual*.

## CLIFFORD I. WORKMAN, Ph.D.

5. Smith, K.S., **Workman, C.I.\***, Klebl, C., Michalak, N.M. (2021, February). Unattractive and unusual faces elicit negative inferences about moral character. *Symposium at the 21<sup>st</sup> Annual Convention for SPSP, Virtual*. \*Co-chair
4. Han, H., **Workman, C.I.**, Dawson, K.J., May, J. (2018, November). Which stories of moral exemplars best provoke moral behavior? *Talk presented at the 44<sup>th</sup> Annual Association for Moral Education conference, Barcelona, Spain*.
3. Smith, G.S., Barrett, F.S., Savonenko, A., Zhou, Y., Wong, D.F., **Workman, C.I.** (2016, July). Molecular Imaging of Serotonin Degeneration and Alzheimer Neuropathology in Late Life Depression and Mild Cognitive Impairment. *Talk presented at the 5<sup>th</sup> Biennial CINP World Congress of Neuropsychopharmacology, Seoul, Republic of Korea. International Journal of Neuropsychopharmacology*, 19(Supplement 1):45.
2. **Workman, C.I.** (2015, May). Unhappy to Help: Moral Cognition and Emotions in Remitted Depression. *Talk presented at The D'Or Institute for Research and Education, Rio de Janeiro, Brazil*.
1. **Workman, C.I.** (2015, April). Subgenual-amygdala-frontal disconnection is distinctive for vulnerability to melancholic depression. *Talk presented at the World Congress on Brain, Behavior and Emotions 2015, Porto Alegre, Brazil*.

### **HONORS & AWARDS:**

---

2020	Sigma Xi (Associate Member)
2019	Summer Seminars in Neuroscience and Philosophy (SSNAP) Fellowship
2017	SSNAP Fellowship
2016	UM Faculty of Medical and Human Sciences "Outstanding Contribution to Postgraduate Research Environment" Award
2015	World Congress on Brain, Behavior and Emotions "Brain 2015 International Travel Award" and "Lundbeck Research Incentive Award", UM Students' Union "Student Representative of the Year" and "Best Student Representative-Led Event" Awards
2014	UM Faculty of Medical and Human Sciences Postgraduate Showcase "First Place Presentation" Prize, UM Institute of Brain, Behaviour and Mental Health PhD Showcase "Best Presentation" Award, UM Faculty of Medical and Human Sciences Graduate School Travel Award
2012	UM President's Doctoral Scholar Award
2007	Magna cum laude honors, Phi Beta Kappa Society (Member), UMBC Alumni Association Outstanding Student Award for Psychology, Honor Society of Phi Kappa Phi (Member), Psi Chi (Member)
2006	Golden Key International Honour Society (Member)
2003	UMBC Dean's Scholar Award

### **OTHER RESEARCH EXPERIENCE:**

---

3/11 – 9/12	Senior Research Program Coordinator, The Johns Hopkins University, Division of Geriatric Psychiatry and Neuropsychiatry, Baltimore, MD (Mentor: Gwenn Smith, Ph.D.)
12/08 – 3/11	Research Assistant, The Johns Hopkins University, Division of Geriatric Psychiatry and Neuropsychiatry, Baltimore, MD (Mentor: Gwenn S. Smith, Ph.D.)
5/07 – 2/08	Research Assistant, UMBC, Department of Psychology, Baltimore County, Baltimore, MD (Mentor: Shari R. Waldstein, Ph.D.)
1/07 – 12/07	Research Assistant, UMBC, Department of Psychology, Baltimore County, Baltimore, MD (Mentor: Robert R. Provine, Ph.D.)

## CLIFFORD I. WORKMAN, Ph.D.

8/06 – 5/07      Research Assistant, UMBC, Department of Psychology, Baltimore County, Baltimore, MD (Mentor: Christopher M. Murphy, Ph.D.)

### RESEARCH SKILLS:

---

Research	<p>Project coordination, ethics protocol development/regulatory compliance monitoring, participant recruitment and screening, data management and quality assurance, supervision of research staff, mentorship of undergraduate (current: 1; past: 2) and graduate (current: 1; past: 3) students</p> <p><i>Research populations:</i> healthy volunteers and patients with major depression (across the lifespan), Alzheimer’s disease, and mild cognitive impairment</p>
Neuroimaging	<p><i>Modalities:</i> PET (FDG, O-15, SERT, PiB), MRI (3T &amp; 7T; fMRI [task &amp; resting], anatomical, MRS, DTI)</p> <p><i>Pre-processing and analysis:</i> SPM, FSL, AFNI, DPARSFA, REST, GIFT, ART, ArtRepair, xjView, IDAE, DTI Studio, LCMoel, MRICro/MRlCron/MRlCroGL, TalairachClient</p> <p><i>Task programming:</i> OpenSesame, E-Prime, PsychToolbox (e.g., for reaction timing in MATLAB)</p>
Psychometrics	<p><i>Neuropsychological assessment:</i> executive functioning (DKEFS [Trails, Verbal Fluency, Stroop, Card Sort], SDMT), memory (CVLT, BVMT-R, RCFT), personality (NEO-PI-R), and decision-making (IGT)</p> <p><i>Clinical assessment:</i> MMSE, MADRS, BDI, LIFE, WTAR; trained to administer the SCID</p> <p><i>Other:</i> eye tracking (Tobii Pro Nano &amp; Tobii Pro Labs), facial landmarking (InterFace, WebMorph)</p> <p><i>Measure development:</i> Altruistic Choices Task (ACT) to assess preferences for acting prosocially</p>
Coding	<p><i>Proficiencies:</i> MATLAB, Python, R (e.g., linear mixed effects modelling; also proficient with SPSS &amp; JASP), PHP/SQL, HTML/CSS/JavaScript, Windows &amp; Linux (Debian &amp; Ubutnu) operating systems</p> <p><i>Software development:</i> task programming software in MATLAB (to support the ACT), PET data pre-processing and analysis software in MATLAB, the Face Image Meta-Database (fIMDb) &amp; ChatLab Facial Anomaly Database (CFAD) in PHP/SQL (both here: <a href="https://cliffordworkman.com/resources/">https://cliffordworkman.com/resources/</a>)</p>

### TEACHING EXPERIENCE & PEDAGOGICAL TRAINING:

---

3/21	Guest lecturer, “Neuroscience and Society” (11 undergraduates; virtual), Haverford College, Department of Psychology, Haverford, PA (Lead: Hilary Gerstein, Ph.D.)
2/21 – 5/21	Course Lead, “The Origins of Morality” (14 undergraduates; virtual), Haverford College, Department of Psychology, Haverford, PA
4/20	Guest lecturer, “Readings in Psychology” (graduate course; virtual), Rutgers, The State University of New Jersey, Camden, NJ (Lead: Sarah Allred, Ph.D.)
3/17 – 5/17	Teaching Assistant, “Multidisciplinary Perspectives on Morality” (~20 undergraduates), The University of Chicago, Department of Psychology, Chicago, IL (Lead: Jean Decety, Ph.D.)
3/17 – 5/17	Trainee, Pedagogy Professional Development Series, The University of Chicago, Department of Psychology, Chicago, IL
10/15 – 12/15	Teaching Assistant, “Sociality & Communication: Evolutionary Perspectives” (~250 undergraduates), UM, School of Psychology, Manchester, UK (Leads: Keith Jensen Ph.D. & Elena Lieven Ph.D.)
10/15 – 11/15	Teaching Assistant, “Psychology Work Placement Unit” (undergraduate course), UM, School of Psychology, Manchester, UK (Lead: Christine Rogers)
7/13 – Present	Founder/organizer of the Neurophilosophy Discussion Group at UM (2013 – 2015) and the University of Chicago (2016 – Present) where interdisciplinary groups of scholars discussed research at the intersection of neuroscience and philosophy

## CLIFFORD I. WORKMAN, Ph.D.

### **PROFESSIONAL ORGANIZATIONS, DEPARTMENTAL SERVICE, & OTHER ACTIVITIES:**

---

Editorial	Associate Editor, <i>Frontiers in Psychology: Theoretical and Philosophical Psychology</i>
Journal Review	<i>Australian and New Zealand Journal of Psychiatry</i> ; <i>Biological Psychiatry</i> ; <i>Brain Imaging and Behavior</i> ; <i>Brain Structure and Function</i> ; <i>Cognition</i> ; <i>Developmental Psychology</i> ; <i>Environment Systems &amp; Decisions</i> ; <i>Frontiers in Neurology</i> ; <i>Frontiers in Psychology</i> ; <i>Journal of European Psychology Students (JEPS)</i> ; <i>NeuroImage</i> ; <i>Neuroscience Letters</i> ; <i>New Ideas in Psychology</i> ; <i>Psychological Medicine</i> ; <i>Psychological Science</i> ; <i>Psychology of Aesthetics, Creativity, and the Arts (PACA)</i> ; <i>Scientific Reports</i> ; <i>Social Cognitive and Affective Neuroscience (SCAN)</i> ; <i>Social Neuroscience</i>
Grant Review	Austrian Science Fund (FWF)
Membership	American Psychological Association, Association for Psychological Science, Cognitive Neuroscience Society, New York Academy of Sciences, Organization for Human Brain Mapping, Society for Neuroscience, Society for Personality and Social Psychology, Society for Social Neuroscience
2013 – 14	UM Faculty of Medical and Human Sciences Graduate Society (Student Advisor)
2012 – 15	UM Institute of Brain, Behaviour and Mental Health Student Representative
2012 – 15	UM School of Psychological Sciences Student Representative
2012 – 13	UM Faculty of Medical and Human Sciences Graduate Society (Founding Chair)

### **PUBLIC ENGAGEMENT:**

---

2019	UPenn Biomedical Postdoctoral Council (BPC) "Psychology of Taste" event (Coordinator), Spark Philadelphia "A model to study epilepsy" workshop (Volunteer)
2018	UPenn BPC "Brain Building Blocks" event (Coordinator)
2015	British Science Association's "BEST Biotechnology Business Competition" workshop (Volunteer), UM "What do psychological scientists do?" event (Volunteer)
2014	UM "Psychology Work Experience" event (Volunteer), UM "Exploring Molecules in Medicine" event (Volunteer), UM "Psychology of Taste" event (Volunteer)
2013	UM "Making Medicines" event (Coordinator), UM "Elevator Pitch" series (Coordinator), UM "Manchester Minute Microlectures" event (Speaker), UM "Exploring Molecules in Medicine" event (Coordinator)
2013 – 15	British Science Association's "Big Saturday" events (Volunteer)